

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A method of communicating information between heterogenous systems, the method comprising:

providing a publisher/subscriber architecture having a subscription manager for generating a subscription and acting as a proxy subscriber on a first network to receive first information over the first network relating to the subscription, for use by a specific entity communicating with the publisher/subscriber architecture over a second network;

using a subscription router to receive the first information;

using a first protocol translator associated with the subscription manager for translating the first information from a first protocol to a second protocol;

using the subscription router to access a table to determine which one of a plurality of different entities in communication with the publisher/subscriber architecture, and that have each previously provided a subscription request to the publisher/subscriber architecture, are to receive the first information;

using the table to determine specifically which one or more of the entities are to receive the first information, and transmitting the first information to the one or more of the entities in accordance with subscription information from the table[[,]];

using a publication manager of the publisher/subscriber architecture to accept a second information from the one or more of the entities, and to act as a publisher of the second information for the one or more of the entities to at least one remote entity; and

using a second protocol translator associated with the publication manager for translating the second information from a third protocol to the second protocol;

for at least one of the publisher and subscriber operations, using the publisher/subscriber architecture to automatically register the one or more of the entities to implement one of the publishing and subscription operations without a registration action by the one or more of the entities.

2. (Previously Presented) The method according to Claim 1, further comprising time division multiplexing information with the one or more of the entities.

3. (Original) The method according to Claim 1, further comprising fusing the first information and a third information and transmitting the fused information.

4. (Previously Presented) The method according to Claim 3, wherein the first information and the third information are transmitted at different rates.

5. (Cancelled)

6. (Original) The method according to Claim 5, wherein the first protocol is a TDM protocol and the second protocol is an Internet Protocol.

7. (Original) The method according to Claim 5, further comprising using XML to translate between the first protocol and the second protocol.

8. (Original) The method according to Claim 1, further comprising validating the second information by comparing the protocol associated with the second information against an expected protocol for the second information.

9. (Original) The method according to Claim 8, wherein the validating further comprises using an XSD schema.

10. (Original) The method according to Claim 8, further comprising ignoring subsequent messages from the same source if the validation failed.

11. (Previously Presented) The method according to Claim 1, further comprising accepting a request for a changed subscription from the entity and changing the subscription, whereby dynamic subscription registration occurs; and updating the table to reflect the changed subscription.

12. (Currently Amended) An agent, to be interposed between a first network and a second network, the agent comprising:

an interface to a specific entity, the specific entity interface including a first protocol for communicating with the specific entity over the first network; and

a network interface to a publisher/subscriber architecture on the second network, the publisher/subscriber architecture implemented via a processor, and including:

a publication manager that determines which one of a plurality of remote entities is to receive a first quantity of information that is received by the agent from the specific entity and published by the agent; [[and]]

a first protocol translator associated with the publication manager for translating the first quantity of information from a first protocol to a second protocol when required;

a subscription manager that establishes at least one subscription for the specific entity to receive publications from at least a selected one of the plurality of remote entities;

a subscription router that receives the publications from the selected one of the remote entities;

a second protocol translator associated with the subscription manager for translating the publications from a third protocol to the second protocol when required;

a subscription and publication table that the subscription router accesses to hold subscription information pertaining to which ones of a plurality of different entities are to receive subscription information from the subscription router, and to identify that the subscription information is to be transmitted to the specific entity; and

the subscription and publication table also holding publication information as to which one or more of said pluralities of remote entities said publications from said specific remote entity are to be published to.

13. (Cancelled)

14. (Currently Amended) The agent according to Claim 12, wherein at least one of the first and second translators is the translator being-based on XML.

15. (Original) The agent according to Claim 12, further comprising an information fuser wherein the fuser to fuse information from at least two sources, the sources being associated with at least one of the first network and the second network.

16. (Previously Presented) The agent according to Claim 15, wherein the information fuser being configured to accept information from the first and second sources at different rates.

17. (Previously Presented) The agent according to Claim 12, further comprising a registration manager to register the specific entity as at least one of a publisher and a subscriber.

18. (Previously Presented) The agent according to Claim 12, further comprising a validation manager to validate information received from the second network.

19. (Previously Presented) The agent according to Claim 18, wherein the validation manager is adapted to validate the information by comparing the protocol associated with the information received from the second network with an expected protocol for information received from the second network.

20. (Original) The agent according to Claim 19, further comprising an XSD schema used by the validation manager to validate the information received from the second network.

21. (Previously Presented) The agent according to Claim 12, wherein the specific entity interface is a TDM interface.

22. (Previously Presented) The agent according to Claim 12, wherein the network interface includes an Internet interface.

23. (Previously Presented) The agent according to Claim 12, wherein the agent is implemented in at least one of hardware, firmware, and software.

24. (Currently Amended) A communications network, comprising
a first network having a first protocol;
a specific entity configured to use the first protocol to communicate over the first
network; and
an agent associated with the first network interposed between the first network
and a second network including a publisher and subscriber architecture, the publisher
and subscriber architecture being implemented via a processor, the agent adapted to
act as:
a publisher for the entity for a first information to be transmitted by the entity over
the first network ~~in accordance with the first protocol, and;~~
a first protocol translator associated with the publisher for translating the first
information from a first protocol to a second protocol;
a subscriber for the entity for a second information to be transmitted to the agent
over the second network from one or more remotely located entities;
a second protocol translator associated with the subscriber for translating the
second information from a third protocol to a second protocol;
the publisher and subscriber architecture adapted to access a subscription and
publication table to determine which one or more of said plurality of remotely located
entities said first information published by said specific entity is to be published to; and
the publisher and subscriber architecture adapted to access the subscription and
publication table to determine, from data stored therein, that the specific entity is to
receive the second information from a given one of said one or more remotely located
entities.

25. (Original) The network according to Claim 24, further comprising:
a third network in communication with the second network and providing the
second information.

26. (Original) The network according to Claim 24, further comprising:
a third network in communication with the second network and subscribing for
the first information.

27. (Original) The network according to Claim 24, wherein the first protocol is
a TDM protocol.

28. (Original) The network according to Claim 27, wherein the first protocol is
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29. (Original) The network according to Claim 27, wherein the first protocol is
VMF.

30. (Cancelled)

31. (Currently Amended) The network according to Claim 24 [[30]], wherein at
least one of the first and second translators the translator is based on XML.

32. (Original) The network according to Claim 24, wherein the first network is associated with a mobile platform.

33. (Original) The network according to Claim 32, wherein the mobile platform is an aircraft.

34. (Original) The network according to Claim 24, the agent further comprising a validation manager to validate information received from the second network by comparing a protocol associated with the information received from the second network with an XSD schema.

35. (Original) The network according to Claim 24 wherein the first protocol is custom to the first network.
